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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,282	02/06/2004	Manabu Kika	248510US-2CONT	4948
22850	7590	11/22/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			TRAN, THUY V	
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ALEXANDRIA, VA 22314			PAPER NUMBER	

2821

DATE MAILED: 11/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,282

Applicant(s)

KIKA, MANABU

Examiner

Thuy V. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 12-33 is/are rejected.
- 7) ☒ Claim(s) 6-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02/06/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This is a response to the Applicant's filing on 02/06/2004. In virtue of this filing, claims 1-33 are currently presented in the instant application.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the United States on 02/06/2004. It is noted, however, that applicant has not filed a certified copy of the foreign application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 02/06/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings accepted

3. The drawings submitted on 02/06/2004 are accepted.

Abstract Objection

4. The abstract of the disclosure is objected to because it is too long. Correction is required. See MPEP § 608.01(b).

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections/ Minor Informalities

6. Claims 2-5 and 10-33 are objected to because of the following informalities:

Claims 2-5, lines 2, --the part of-- should be inserted between “wherein” and “the” in each claim;

Claim 10, line 17, “A” should be changed to --a--;

Claim 11, line 17, “A” should be changed to --a--; and

Claims 12-33, lines 2, “a” should be changed to --the--.

Appropriate correction is required.

7. Claims 12-33 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. While “A high-voltage discharge lamp apparatus” or “floodlight projector apparatus” is the preamble of the claim, “the high-voltage discharge lamp lighting apparatus”, which was described in the previous claim, does not constitute any further limitations. Therefore, these claims are not treated on the merits.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

9. Claims 4, 8, and 10-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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With respect to claim 4, the recitation “wherein the high voltage pulse generating transformer ... a primary coil” in lines 2-6 appears to be mis-descriptive, and as such, it renders the claim indefinite. While a part of the primary coil is included in the cap means, the socket means cannot include the primary coil (meaning the whole coil). Clarification is required.

Claims 8, 10-11, 15, 19, 21-22, 26, 30, and 32-33 are also rejected under 35 U.S.C. 112, 2nd paragraph, since they are dependent on claim 4.

With respect to claims 12-33, the recitation “ a high voltage discharge lamp which is controlled for the lighting operation by the high-voltage discharge lighting apparatus” in lines 4-6 of each claim renders the claims indefinite since it is not clear whether or not the recited “high-voltage discharge lamp” is the one that is included in the high-voltage discharge lamp lighting apparatus. Clarification is required.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) Fig. 10 in view of Shirai et al. (U.S. Patent No. 5,550,452).

With respect to claim 1, AAPA Fig. 10 discloses a high voltage discharge lamp lighting apparatus comprising (1) lighting means comprising a stabilizer [72] and an ignitor circuit comprising an oscillating circuit-for-driving [73] and a high-voltage pulse generating transformer

[74]; the stabilizer is configured for supplying a power voltage necessary for maintaining the lighting operation to a high-voltage discharge lamp [80]; the oscillating circuit-for-driving is configured for generating a start pulse upon starting the lighting operation of the high-voltage discharge lamp [80]; the high-voltage pulse generating transformer is configured for increasing a voltage of the start pulse, (2) cap means [76] which attaches and holds the high voltage discharge lamp [80], and (3) socket means [71] to which the cap means [76] is fit and attached and which includes at least the oscillating circuit-for-driving in the ignitor circuit and a part of the high-voltage pulse generating transformer (for the whole description above, see Applicant's submitted specification, pages 2-5). AAPA Fig. 10 does not show that a part of the high-voltage pulse-generating transformer of the ignitor circuit is included in the cap means.

Shirai et al. discloses, in Figs. 1A-1B, a lighting apparatus comprising a transformer [14, 16] having a secondary coil [16] (Shirai also teach that a magnetic core [84] can be provided at the side of a primary coil [14] or at the side of a secondary coil [16] or that the magnetic core may be omitted; see col. 7, lines 29-37) contained in a cap means [18].

It would have been obvious to one of ordinary skills in the art at the time of the invention to modify the lighting apparatus of AAPA Fig. 10 by accommodating the secondary coil, which is a part of the high-voltage pulse- generating transformer of the ignitor circuit, in the cap means to reduce the overall size of the lighting apparatus since such a configuration of the secondary winding of the transformer in the cap means for the stated purpose has been well known in the art as evidenced by the teachings of Shirai et al. (see Fig. 1A).

With respect to claim 2, the combination of AAPA Fig. 10 and Shirai et al. disclose that the part of the high-voltage pulse generating transformer included in the cap means comprises a

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magnetic core and a secondary coil forming the high-voltage pulse generating transformer (see notes of Shirai et al. in claim 1 rejection), the socket means includes a primary coil of the high-voltage pulse generating transformer, and the operation for fitting and attaching the cap means to the socket means causes to function as the high-voltage pulse generating transformer (as a result of connecting the two parts together).

With respect to claim 3, the combination of AAPA Fig. 10 and Shirai et al. disclose that the part of the high-voltage pulse generating transformer included in the cap means comprises a secondary coil forming the high-voltage pulse generating transformer, the socket means includes a primary coil and a magnetic core of the high-voltage pulse generating transformer (see notes of Shirai et al. in claim 1 rejection), and the operation for fitting and attaching the cap means to the socket means causes to function as the high-voltage pulse generating transformer (as a result of connecting the two parts together).

With respect to claim 4, as best understood, the combination of AAPA Fig. 10 and Shirai et al. disclose that the part of the high-voltage pulse generating transformer included in the cap means comprises a part of the primary coil (when the two parts, the cap means and the socket means, are pushed in) forming the high-voltage pulse generating transformer, the socket means includes other part of the primary coil (when the two parts, the cap means and the socket means, are pushed in), a magnetic core, and a second coil of the high-voltage pulse generating transformer, and the operation for fitting and attaching the cap means to the socket means causes to form the primary coil of the high-voltage pulse generating transformer and further causes to function as the high-voltage pulse generating transformer (as a result of connecting the two parts together).

With respect to claim 5, the combination of AAPA Fig. 10 and Shirai et al. disclose that the part of the high-voltage pulse generating transformer included in the cap means comprises a magnetic core forming the high-voltage pulse generating transformer, the socket means includes a primary coil and a secondary coil of the high-voltage pulse generating transformer (see notes of Shirai et al. in claim 1 rejection), and the operation for fitting and attaching the cap means to the socket means causes to function as the high-voltage pulse generating transformer (as a result of connecting the two parts together).

Allowable Subject Matter

12. Claims 6-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter:

Prior art fails to disclose or fairly suggest:

- A high-voltage discharge lamp lighting apparatus wherein the cap means has a fitting and attaching portion which is formed into a cylindrical member and which can be fit into the inner circumference of the cylindrical member of the socket means, first and second contacts contact with the two connecting pieces are apart from each other in the axial direction with a ring shape on the outer-circumferential side surface of the cylindrical member of the cap means, the first contact is connected to one electrode of the high-voltage discharge lamp, and the second contact is connected to one end portion via the secondary coil of the high-voltage pulse generating transformer from another electrode of the high-voltage discharge lamp, in combination with the

remaining claimed limitations as called for in claim 6 (note that claims 17 and 28 would be allowable since they are dependent on claim 6 if corrected to overcome the objections set forth in this Office Action);

- A high-voltage discharge lamp lighting apparatus wherein the cap means has a fitting and attaching portion which is formed into a cylindrical member and which can be fit into the inner circumference of the cylindrical member of the socket means, first and second contacts contact with the two connecting pieces are apart from each other in the axial direction with a ring shape on the outer-circumferential side surface of the cylindrical member of the cap means, the first contact is connected to one electrode of the high-voltage discharge lamp, and the second contact is connected to one end portion via the secondary coil of the high-voltage pulse generating transformer from another electrode of the high-voltage discharge lamp, in combination with the remaining claimed limitations as called for in claim 7 (note that claims 18 and 29 would be allowable since they are dependent on claim 7 if corrected to overcome the objections set forth in this Office Action);
- A high-voltage discharge lamp lighting apparatus wherein the cap means has a fitting and attaching portion which is formed into a cylindrical member fittable into the inner circumference of the cylindrical member of the socket means, the outer-circumferential side surface of the cylindrical member of the cap means has a first contact with a ring shape with which the two connecting pieces can make contact, the outer-circumferential bottom surface of the cylindrical member of the cap means has a contact on the high-voltage side with a projected shape which makes contact with

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the connecting piece on the high-voltage side, and the first contact and the contact on the high-voltage side are connected to electrodes on both terminals of the high-voltage discharge lamp, in combination with the remaining claimed limitations as called for in claim 8 (note that claim 11 would be allowable since it is dependent on claim 8, and that claims 19, 22, 30, and 33 would be allowable since they are dependent on claim 8 if corrected to overcome the objections set forth in this Office Action);

- A high-voltage discharge lamp lighting apparatus wherein the cap means has a fitting and attaching portion which is formed into a cylindrical member fittable into the inner circumference of the cylindrical member of the socket means, the outer-circumferential side surface of the cylindrical member of the cap means has a first contact with a ring shape with which the two connecting pieces can make contact, the outer-circumferential bottom surface of the cylindrical member of the cap means has a contact on the high-voltage side with a projected shape which makes contact with the connecting piece on the high-voltage side, and the first contact and the contact on the high-voltage side are connected to electrodes on both terminals of the high-voltage discharge lamp, in combination with the remaining claimed limitations as called for in claim 9 (note that claims 20 and 31 would be allowable since they are dependent on claim 9 if corrected to overcome the objections set forth in this Office Action); and
- A high-voltage discharge lamp lighting apparatus wherein the high-voltage pulse generating transformer comprises a magnetic core comprising a first magnetic core

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member having a pair of led portions with a U-shaped cross-section, and a second magnetic core member having one end which comes into contact with one leg portion of the first magnetic core member and another end portion of the first magnetic core member and another end which has a gap to the other leg portion of the first magnetic core member with an I-shape of the one end and the other end of the first magnetic core member opposed to each other, in combination with the remaining claimed limitations as called for in claim 10 (note that claims 21 and 32 would be allowable since they are dependent on claim 10 if corrected to overcome the objections set forth in this Office Action).

Citation of relevant prior art

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Yamamoto et al. (U.S. Patent No. 6,392,364) discloses a high-voltage discharge lamp apparatus for vehicles.

Prior art Yamauchi et al. (U.S. Patent No. 5,959,410) discloses an electric power source device.

Prior art Brown et al. (U.S. Patent No. 4,392,081) discloses a lighting unit.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Thuy V. Tran', is positioned above the printed name and title.

Thuy V. Tran
Primary Examiner
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11/15/2004